Technical Update from NetAcad

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MAY 2011

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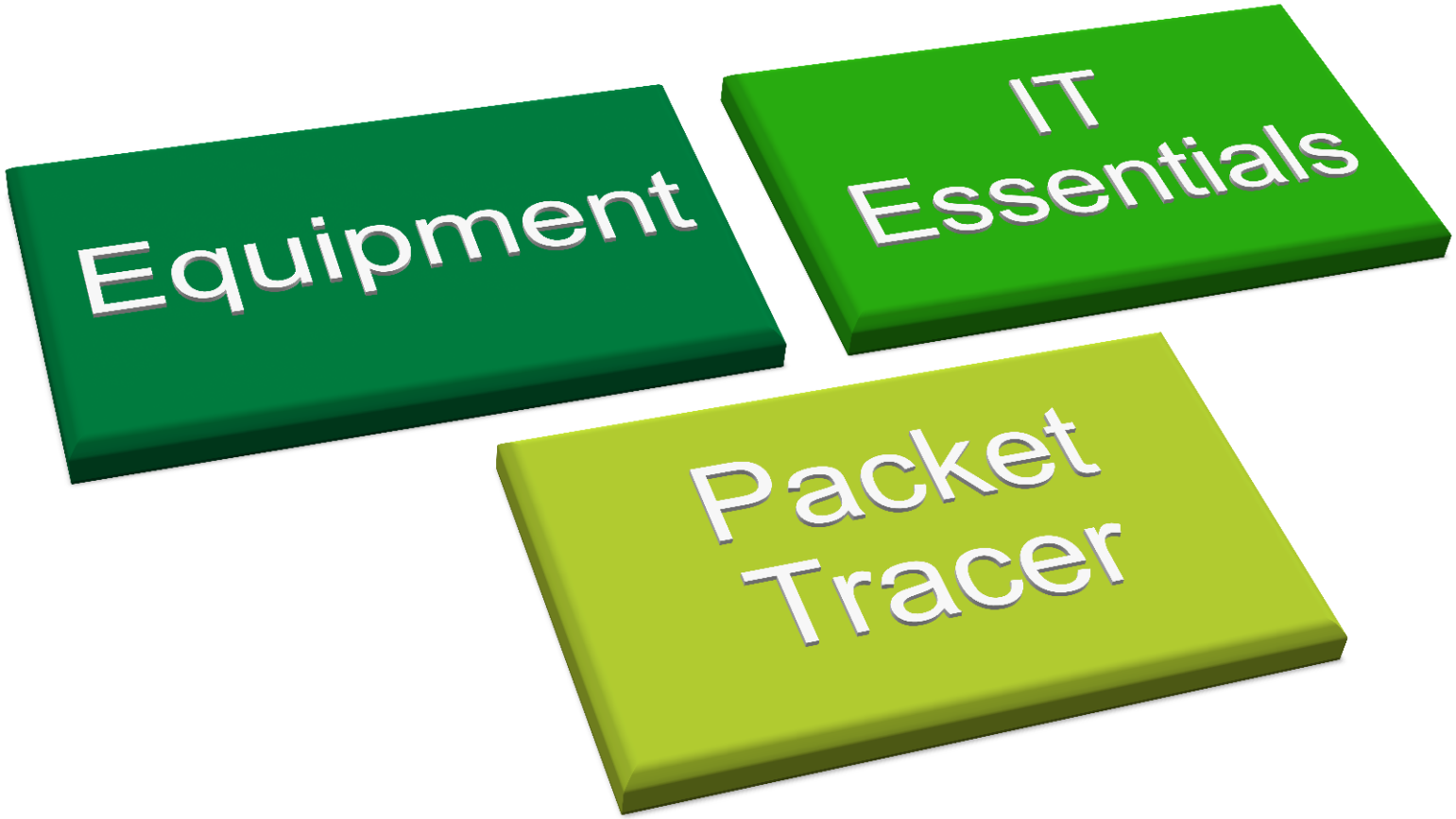
Mind Wide Open™

Agenda



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Equipment

Current Lab Bundle

- CCNA Disc, Exp, Sec
  - Routers: 1841, 2801, 2811
  - Switches: 2960
  - Interfaces: HWIC-4ESW, HWIC-2A/S
- CCNP
  - Routers: 1841, 2811
  - Switches: 2960, 3560
  - Interfaces: HWIC-2T
- Not taking into account appropriate cables, memory, IOS and SmartNET
- EoS (31/10/2011) and EoL (31/10/2016) for 1841/2801/2811 announced

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ISR G2 Objectives

Video-Ready

- Rich-media applications
- High performance
- Application optimization

Customer Experience

Service Virtualization

- Services “On-Demand”
- Customized Applications
- Cloud extension

Business Innovation

Operational Excellence

- Greener technology
- Operational Simplicity
- Rapid ROI with Investment Protection

Lowest TCO

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Updated Lab Bundle

- Routers ISR G1 replaced with ISR G2

ISR G1	ISR G2
1841	1941
2801	2901
2911	

- Important notice: ISR G2 do not support SDM, instead they use CCP

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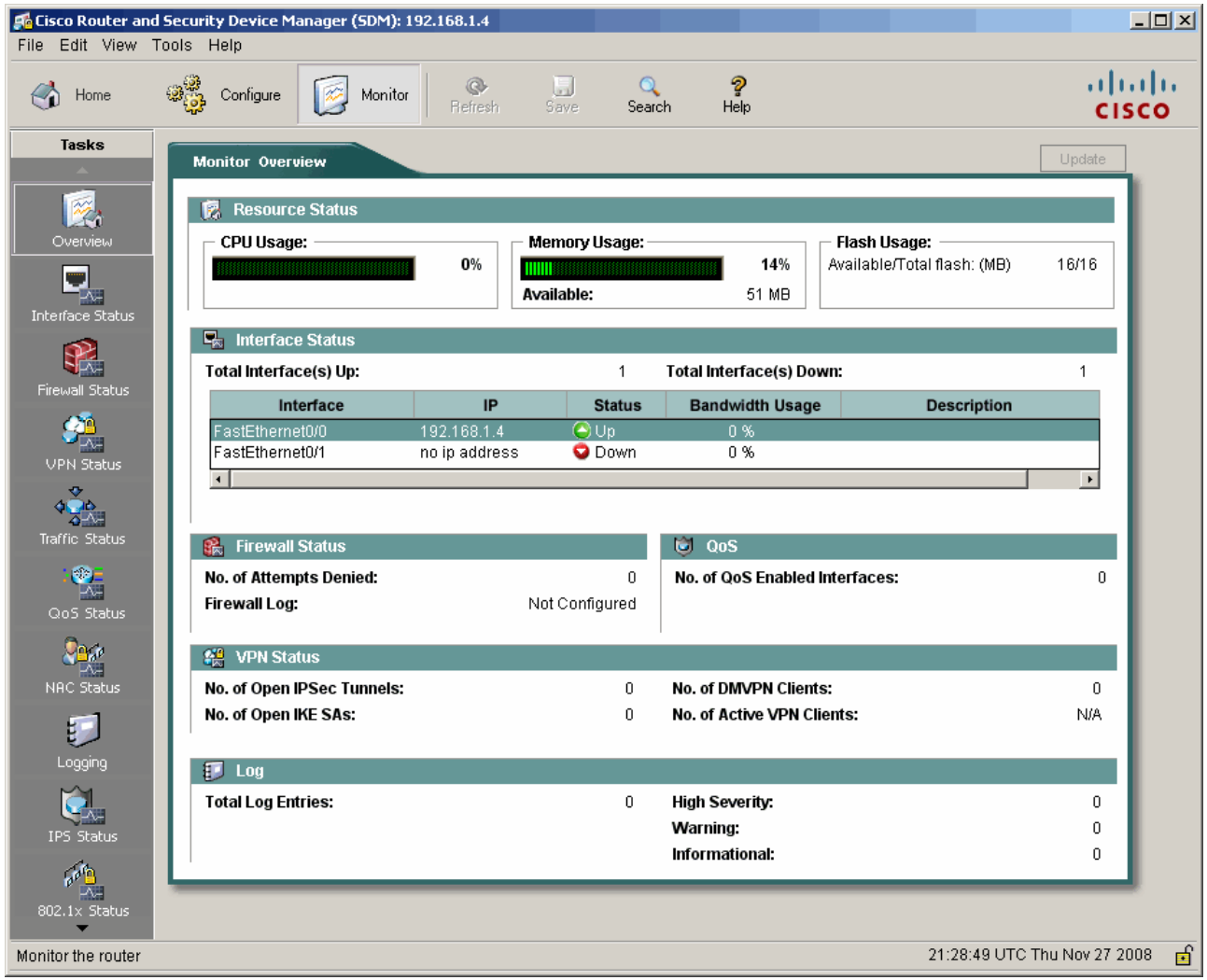
Equipment

SDM



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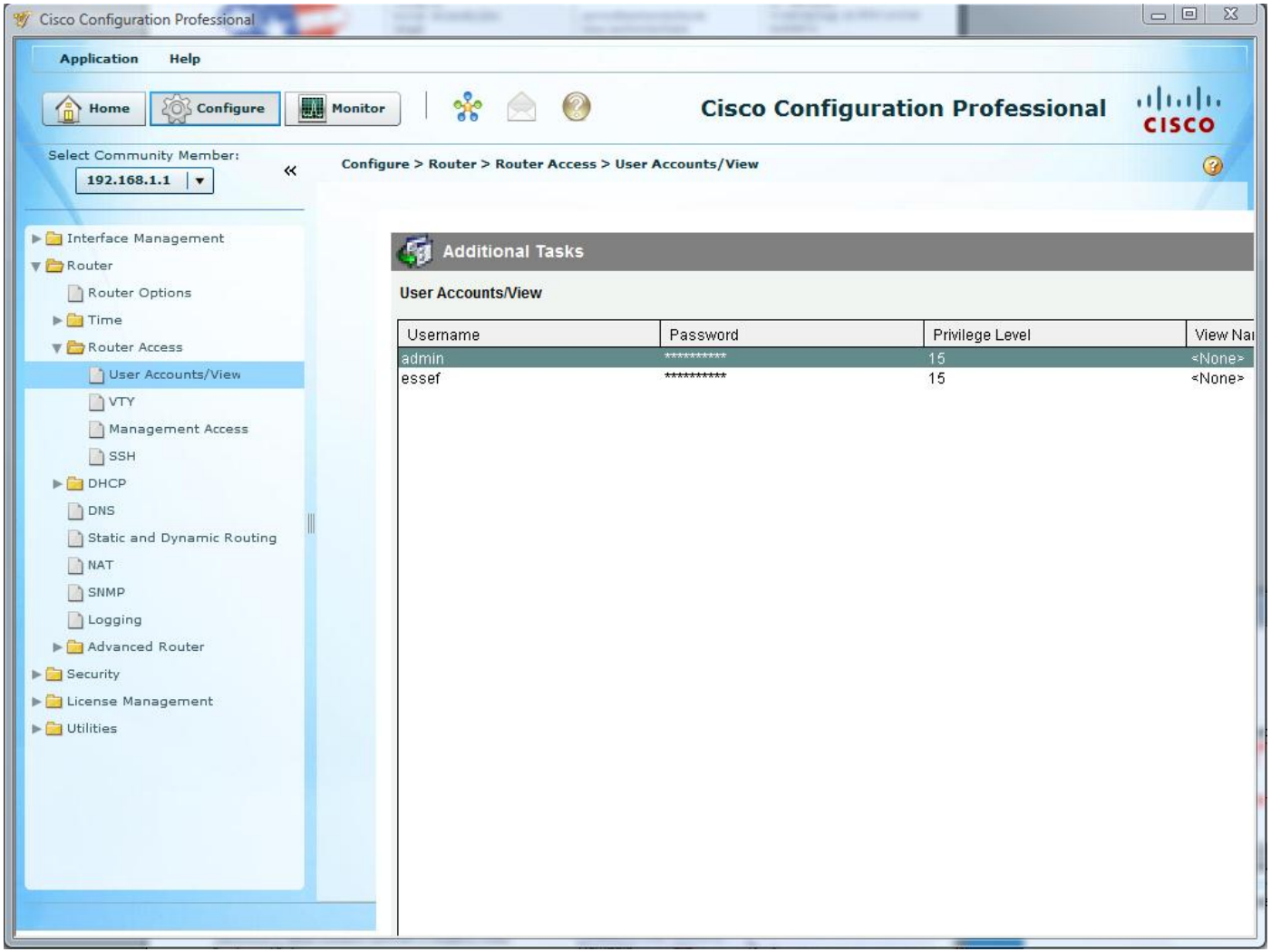
Equipment

CCP



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SDM vs. CCP

- EoL for SDM is 28/02/2014
- CCNA and CCNA Security certification exams have **NOT** been updated yet and **STILL** include SDM
- CCP = SDM + …
  - Additional security feature configurations like GETVPN
  - Wireless
  - Unified Communications (CME, CUE, SRST)
- No SDM/CCP in ITE/CCNP

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Equipment

Areas Affected in CCNA

Course	Curriculum Text	Lab
Disc 1	None	None
Disc 2	5.1 , 5.2, 5.3	5.2.3, 5.2.4, 5.3.7, 5.3.8, 8.3.3b
Disc 3	None	None
Disc 4	8.3	8.3.4a
Exp 1	None	None
Exp 2	None	None
Exp 3	None	None
Exp 4	4.4, 4.6, 7.1	4.6.1, 4.6.2, 4.6.3
Sec	2.1, 2.3, 2.4, 3.2, 3.4, 3.5, 4.1, 4.4, 5.3, 5.4, 8.5, 8.6	1, 2, 3, 4, 5, 8a, 8b, 8c, 9

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Software Licensing

- When a new ISR G2 platform is ordered, the router is shipped with a single universal IOS software image and the corresponding permanent technology and feature licenses that were configured at the time of ordering from Cisco.

- Instead of at least 7 different IOS for every router model, now there's only 1 (Highlander style, "there could be only one")

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The Universal IOS

- Named either:
  - **universalk9**: with strong encryption capabilities
  - **universalk9_npe**: No payload encryption (This is for countries with import requirements)
- IOS version 15
- All features are included in the universal IOS, but activated through licenses

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Technology Packages

IPBase

- Entry Level IOS Functionality

DATA

- MPLS, ATM, Multi-Protocols

UC

- IP Telephony

SEC

- IOS Firewall, IPS, IPSec, VPN

- They are enabled in the universal image via Cisco Software Activation licensing keys.
- The licensing keys are dependent on the product ID, serial number and product activation key.

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Migration Table

Previous 12.4 Feature Set	Recommended Technology Package Licenses
IP Base	IPBASE
IP Voice	UC
Enterprise Base	DATA
Enterprise Services	DATA + UC
SP Services	DATA + UC
Advanced Security	SEC
Advanced IP Services	SEC + UC + DATA
Advanced Enterprise Services	SEC + UC + DATA

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Technology Package Description

IPBase	**Offers features found in IPBase IOS image** on ISR 1800,2800 and 3800 + Flexible Netflow + IPV6 parity for IPV4 features present in IPBase. Some of the key feature are AAA, BGP, OSPF, EIGRP, ISIS, RIP, PBR IGMP, Multicast, DHCP, HSRP, GLBP, NHRP, HTTP, HQF, QoS, ACL, NBAR, GRE, CDP, ARP, NTP, PPP, PPPoA, PPPoE, RADIUS, TACACS, SCTP, SMDS, SNMP, STP, VLAN, DTP, Snooping, SPAN, WCCP, ISDN, ADSL over ISDN, NAT, Basic X.25, RSVP, NTP, Flexible Netflow, etc.
SEC	**Offers the security features found in Advanced Security IOS image** on ISR 1800,2800 and 3800 e.g. IKE v1 / IPsec / PKI, IPsec/GRE, Easy VPN w/ DVTI, DMVPN, Static VTI, Firewall, Network Foundation Protection, GETVPN, etc.

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Technology Package Description

DATA	**Offers features found in SP Services and Enterprise Services IOS image** on ISR 1800,2800 and 3800 e.g. MPLS, BFD, RSVP, L2VPN, L2TPv3, Layer 2 Local Switching, Mobile IP, Multicast Authentication, FHRP—GLBP,IP SLAs, PfR ,DECnet, ALPS, RSRB, BIP, DLSw+, FRAS, Token Ring, ISL, IPX,STUN, SNTP, SDLC, QLLC, etc.
UC	**Offers the UC Features found in IPVoice IOS image** on ISR 1800,2800 and 3800 e.g. TDM/PSTN Gateway, Video Gateway[H320/324],Voice Conferencing, Codec Transcoding, RSVP Agent (voice), FAX T.37/38, CAC/QOS, Hoot-n-Holler, etc.

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Feature License Types

- Licenses for certain features can be one of the below:

1. **Permanent**: a license that never expires. Once a permanent license is installed on a router, it is good for that particular feature set for the life of the router even across IOS versions.
2. **Temporary**: a license good for a limited amount of time. ISR G2 includes a full set of 60 day Temporary Licenses for the Data, UC and Security feature sets.
3. **Counted**: a license that actually counts something in the router.
4. **Subscription**: a license that allows access to a feature or capability for a given amount of time unless the subscription is renewed.

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Feature Licenses

Feature License Name	Prerequisites	License Type
SSLVPN	IPBase + SEC (Seck9 only)	Counted
Intrusion Prevention	IPBase + SEC	Subscription
Content Filtering	IPBase + SEC	Subscription
SNA Switching	IPBase + DATA	Permanent
GateKeeper	IPBase + UC	Permanent
CUE	IPBase + UC	Counted
Lawful Intercept	IPBase + SEC + UC + DATA	Permanent

- These licenses are inserted in the router as Software Activation Feature Licenses.

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Right-to-Use Features

Feature License Name	Prerequisites	License Types
CME	IPBase + UC	Counted
SRST	IPBase + UC	Counted
VXLM Gateway	IPBase + UC	Counted
CUBE	IPBase + UC	Counted
Land Mobile Radio	IPBase + UC	Permanent

- These features do not require Cisco software activation and you can begin using the features upon receipt of the Right to Use notification.

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CompTIA A+ Update

- CompTIA updated the following A+ exams to include Windows 7 content
  - Exam 220-701 (Essentials)
  - Exam 220-702 (Practical Applications)

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IT Essentials Update

- Initial announcement in Oct 2010
- Supplement and exam made available in Dec 2010
- Labs released in March 2011
- English for now, French translation is being planned

Content	• Update to ITE curriculum v4.1
Lab	• Update to the lab manual
Assessment	• An exam on Win7 topics

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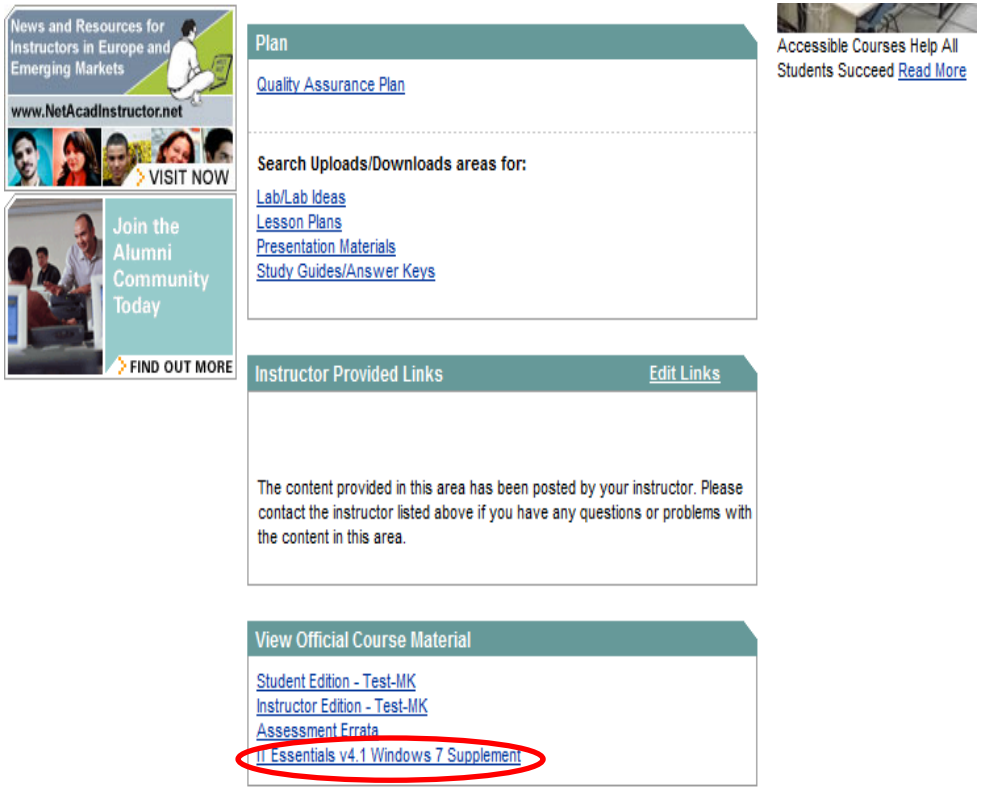
New Content

- 39 changes in 10 chapters
- Downloadable PDF
- Available at the instructor/student class homepage



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New Assessment

- Contains 32 questions
- Final exams do not include Win7 questions
- Recommended to activate this exam after ch. 16

Batch Activation

Select	Assessment Title
☐	Chapter 1 Exam
☐	Chapter 2 Exam
☐	Chapter 3 Exam
☐	Chapter 5 Exam
☐	Chapter 6 Exam
☐	Chapter 7 Exam
☐	Chapter 8 Exam
☐	Chapter 9 Exam
☐	Chapter 10 Exam
☐	Chapter 11 Exam
☐	Chapter 12 Exam
☐	Chapter 13 Exam
☐	Chapter 14 Exam
☐	Chapter 15 Exam
☐	Chapter 16 Exam
☐	Windows 7

Select All Deselect All

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New Labs

- A total of 60 new labs
  (30 for instructors,
  30 for students)

- In 8 chapters

Student Lab Manual			PDF- 156.73 MB 21/03/2011
Student Lab PDF Files	ZIP- 63.07 MB 25/06/2010		
Student Lab Source Files	ZIP- 84.71 MB 25/06/2010		
Student Packet Tracer Manual			PDF- 0.19 MB 24/03/2010
Student Packet Tracer Source Files	ZIP- 0.06 MB 24/03/2010		
Windows 7 Instructor Lab PDF Files	ZIP- 85.07 MB 21/03/2011		
Windows 7 Instructor Lab Source Files	ZIP- 46.7 MB 21/03/2011		
Windows 7 Student Lab PDF Files	ZIP- 79.8 MB 21/03/2011		
Windows 7 Student Lab Source Files	ZIP- 44.14 MB 21/03/2011		

Back to Find Tools

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New Material

- Impact chapter 5 and on
- Available in English
- Being translated into French
- No planned translations to other languages for the time
- Not mandatory, but highly recommended
- No updated SBA, but you can customize your exam to include Win7
- ITE v4.1 remains as is, but with the mentioned additions
- No new GUI for this version, but updates will be part of the GUI in the next version
- New Cisco Press edition should be available in this Fall
- Next ITE version will come out following CompTIA's update in 2012

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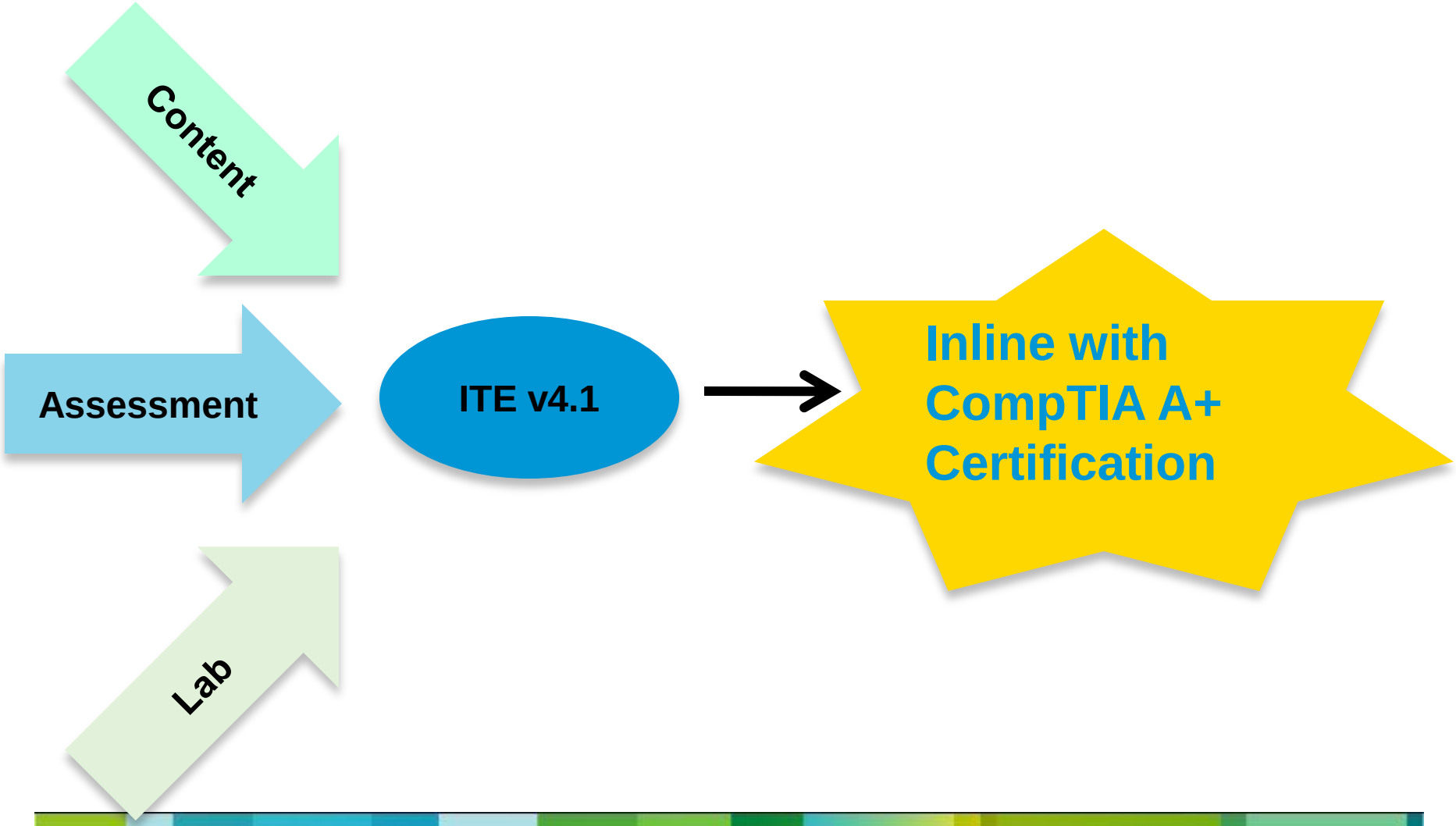
Summary of ITE Update



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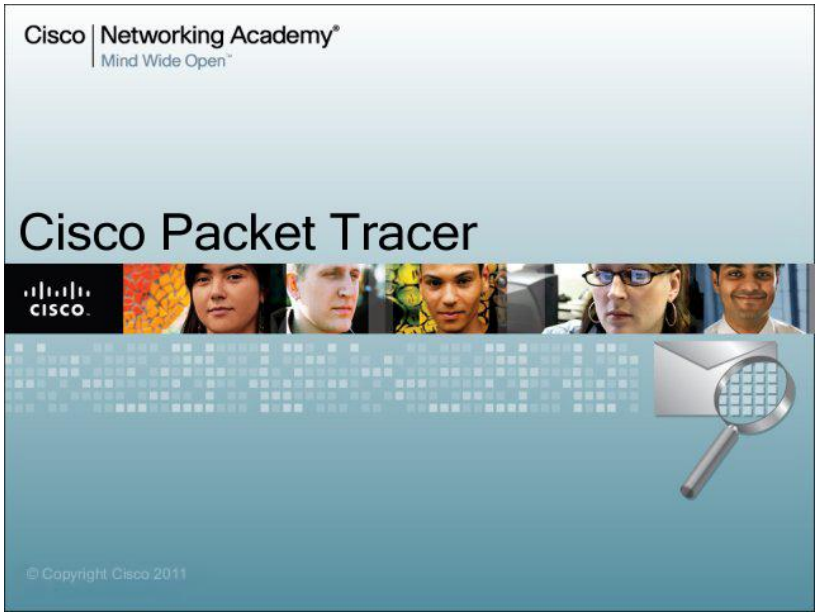
Latest Version

- PT 5.3.2 released in March 2011 as a maintenance release
- Fixed bugs in version 5.3.1
- Supports CCNA Disc/Exp/Sec
- Does not support SDM



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Practice Assessments for CCNA

- PT Practice Skills Based Assessments (SBAs) are the first Packet Tracer Skills Assessments available
- Each CCNA course has a final hands-on skills exam
  - Administered on real equipment in person, or on remotely-accessed equipment
  - Assess ability to apply knowledge and perform real skills to succeed in the workforce
- PT Practice SBAs provide a technology-based solution to practice for the final hands-on exam
  - Available for all CCNA Discovery, Exploration and Security courses
  - Help indicate a student's readiness for final hands-on exam
- Required! Packet Tracer 5.2.1 or above & Java 1.6 or above

Select All | Deselect All

Batch Activation

Select	Assessment Title	Required for Course Completion
☐	CCNAS Chapter 1	
☐	CCNAS Chapter 2	
☐	CCNAS Chapter 3	
☐	CCNAS Chapter 4	
☐	CCNAS Chapter 5	
☐	CCNAS Chapter 6	
☐	CCNAS Chapter 7	
☐	CCNAS Chapter 8	
☐	CCNAS Chapter 9	
☐	CCNAS PT Practice SBA	

Select All | Deselect All

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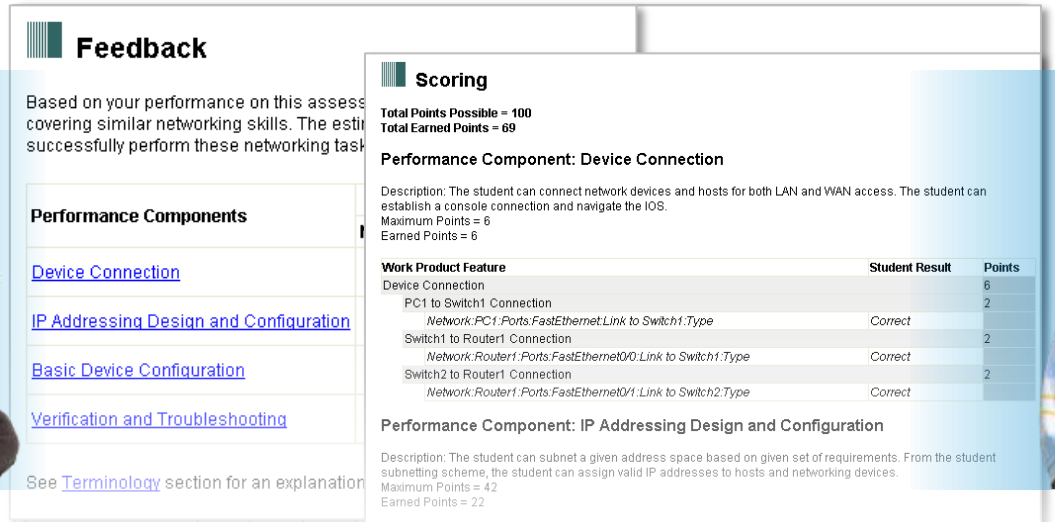
PT Practice SBA Exam Experience



Feedback

Based on your performance on this assess
covering similar networking skills. The esti
successfully perform these networking task

Performance Components

Device Connection

IP Addressing Design and Configuration

Basic Device Configuration

Verification and Troubleshooting

See Terminology section for an explanation

Scoring

Total Points Possible = 100
Total Earned Points = 69

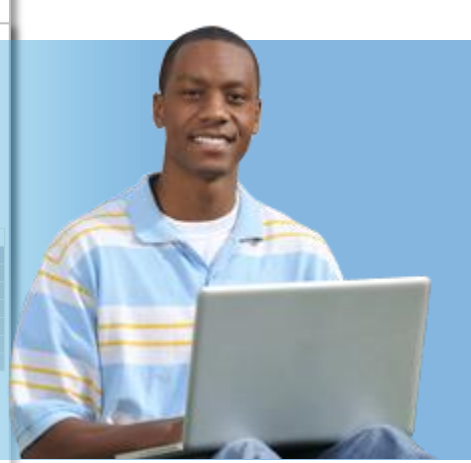
Performance Component: Device Connection

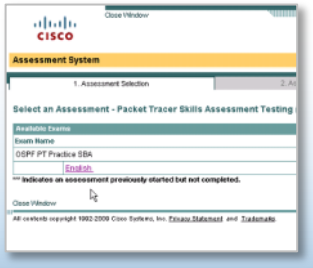
Description: The student can connect network devices and hosts for both LAN and WAN access. The student can establish a console connection and navigate the IOS.
Maximum Points = 6
Earned Points = 6

Work Product Feature	Student Result	Points
Device Connection		6
PC1 to Switch1 Connection		2
Network:PC1:Ports:FastEthernet:Link to Switch1:Type	*Correct*	
Switch1 to Router1 Connection		2
Network:Router1:Ports:FastEthernet0/0:Link to Switch1:Type	*Correct*	
Switch2 to Router1 Connection		2
Network:Router1:Ports:FastEthernet0/1:Link to Switch2:Type	*Correct*	

Performance Component: IP Addressing Design and Configuration

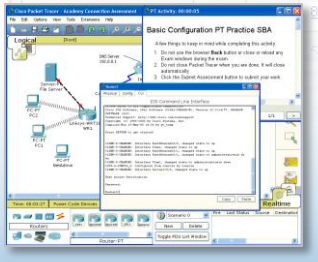
Description: The student can subnet a given address space based on given set of requirements. From the student subnetting scheme, the student can assign valid IP addresses to hosts and networking devices.
Maximum Points = 42
Earned Points = 22





Launch

1

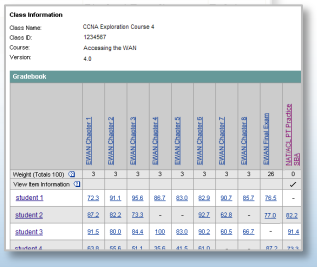


Take Exam

2

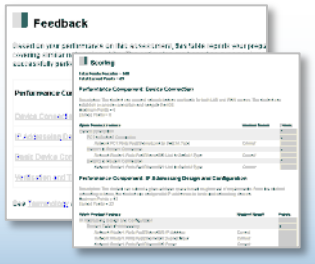
Submit It

3



Automatically Scored

4



View Feedback

5

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Thank you.

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